

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
834009
Component
Natural Gas Engine
Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

Metal levels are typical for a components first oil change.

Contamination

There is no indication of any contamination in the oil

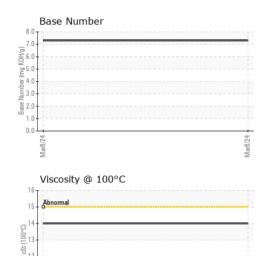
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION method limit/base current history1 history2							
Sample Number Client Info GFL0111822					Mar2024		
Sample Date Client Info 08 Mar 2024	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 170	Sample Number		Client Info		GFL0111822		
Oil Changed			Client Info		08 Mar 2024		
Contamped Client Info Not Change Contamped Client Info NoRMAL Contamped Co	Machine Age	hrs	Client Info		170		
Contamped Client Info Not Change Contamped Client Info NoRMAL Contamped Co	Oil Age	hrs	Client Info		170		
NORMAL NORMAL NETWORK	-		Client Info		Not Changd		
Water WC Method >0.1 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 29 Chromium ppm ASTM D5185m >4 0 Nickel ppm ASTM D5185m >2 1 Titanium ppm ASTM D5185m >3 <1	-				NORMAL		
WEAR METALS	CONTAMINAT	ION	method	limit/base	current	history1	history2
Chromium	Water		WC Method	>0.1	NEG		
Chromium	WEAR METAL	.S	method	limit/base	current	history1	history2
Chromium	Iron	ppm	ASTM D5185m	>50	29		
Nickel	Chromium		ASTM D5185m	>4	0		
Description					1		
Silver	Titanium				-		
Aluminum				>3	-		
Lead							
Copper							
Tin							
Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 25 Barium ppm ASTM D5185m 3 Molybdenum ppm ASTM D5185m 46 Manganese ppm ASTM D5185m 12 Magnesium ppm ASTM D5185m 749 Calcium ppm ASTM D5185m 725 Zinc ppm ASTM D5185m 888 Sulfur ppm ASTM D5185m 2639 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 5							
ADDITIVES					-		
Boron							
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 46 Manganese ppm ASTM D5185m 12 Magnesium ppm ASTM D5185m 749 Calcium ppm ASTM D5185m 1164 Phosphorus ppm ASTM D5185m 725 Zinc ppm ASTM D5185m 888 Sulfur ppm ASTM D5185m 2639 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 31 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 0	Boron	ppm	ASTM D5185m		25		
Manganese ppm ASTM D5185m 12 Magnesium ppm ASTM D5185m 749 Calcium ppm ASTM D5185m 1164 Phosphorus ppm ASTM D5185m 725 Zinc ppm ASTM D5185m 888 Sulfur ppm ASTM D5185m 2639 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >+100 31 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 Sulfation Abs/.1mm *ASTM D7	Barium	ppm	ASTM D5185m		3		
Manganese ppm ASTM D5185m 12 Magnesium ppm ASTM D5185m 749 Calcium ppm ASTM D5185m 1164 Phosphorus ppm ASTM D5185m 725 Zinc ppm ASTM D5185m 888 Sulfur ppm ASTM D5185m 2639 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 31 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 Sulfation Abs/.1mm *ASTM D7	Molybdenum	ppm	ASTM D5185m		46		
Magnesium ppm ASTM D5185m 749 Calcium ppm ASTM D5185m 1164 Phosphorus ppm ASTM D5185m 725 Zinc ppm ASTM D5185m 888 Sulfur ppm ASTM D5185m 2639 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 31 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 20.0 FLUID DEGR	•		ASTM D5185m		12		
Calcium ppm ASTM D5185m 1164 Phosphorus ppm ASTM D5185m 725 Zinc ppm ASTM D5185m 888 Sulfur ppm ASTM D5185m 2639 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 31 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 Sulfation Abs/.1mm *ASTM D7624 >20 9.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm <td< td=""><td>•</td><td></td><td>ASTM D5185m</td><td></td><th>749</th><td></td><td></td></td<>	•		ASTM D5185m		749		
Phosphorus ppm ASTM D5185m 725 Zinc ppm ASTM D5185m 888 Sulfur ppm ASTM D5185m 2639 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 31 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 20.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.3 <t< td=""><td>•</td><td></td><td>ASTM D5185m</td><td></td><th>1164</th><td></td><td></td></t<>	•		ASTM D5185m		1164		
Sulfur ppm ASTM D5185m 2639 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 31 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 20.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.3	Phosphorus		ASTM D5185m		725		
Sulfur ppm ASTM D5185m 2639 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 31 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 20.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.3			ASTM D5185m		888		
Silicon ppm ASTM D5185m >+100 31	Sulfur		ASTM D5185m		2639		
Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 20.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.3	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 20.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.3	Silicon	ppm	ASTM D5185m	>+100	31		
INFRA-RED	Sodium	ppm	ASTM D5185m		5		
Soot % % *ASTM D7844 0 Nitration Abs/cm *ASTM D7624 >20 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 20.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.3	Potassium	ppm	ASTM D5185m	>20	5		
Nitration Abs/cm *ASTM D7624 >20 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 20.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.3	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 20.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.3	Soot %	%	*ASTM D7844		0		
Sulfation Abs/.1mm *ASTM D7415 >30 20.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.3	Nitration	Abs/cm	*ASTM D7624	>20	9.1		
Oxidation					20.0		
	FLUID DEGRAI	OATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	18.3		
	Base Number (BN)	mg KOH/g	ASTM D2896		7.3		



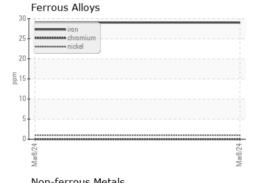
OIL ANALYSIS REPORT



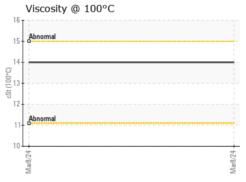
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.1	NEG		
Free Water	scalar	*Visual		NEG		

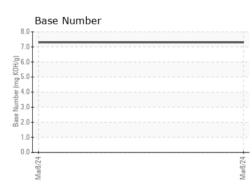
LLUID PROP	EHILO	method		riistory i	History∠
Visc @ 100°C	cSt	ASTM D445	14.0		

GRAPHS



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Certificate L2367

Laboratory Sample No.

Test Package : FLEET

: GFL0111822 Lab Number : 06116497 Unique Number : 10925330

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 12 Mar 2024 **Tested**

: 14 Mar 2024 Diagnosed : 14 Mar 2024 - Wes Davis

GFL Environmental - 652 - Fredericksburg Hauling

10954 Houser Drive Fredericksburg, VA US 22408

Contact: WILLIAM MILO wmilo@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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